

Amendments to the Specification:

Please replace paragraph [0010] with the following amended paragraph:

[0010] Consequently, according to the invention, an artificial intervertebral disk is provided wherein the two elements have a contour by means of which the elements are ~~positively~~ joined to the intermediate element in a form-fitting manner. The invention is based on the notion that the desired range of motion can replicate the natural range of motion of the vertebral column in an optimal manner using an artificial intervertebral disk if the intermediate element is held positively in a corresponding contour of the element, since this means that torsional moments as well as shear forces can be transmitted without any problem and without having to forgo good deformation properties of the intervertebral disk. As a result, the intervertebral disk can be configured especially so that, at the same time, the relative mobility of the elements with respect to each other, that is to say, especially a tilting movement, can be greatly optimized, i.e. the mobility can be improved. In other words, when the function of the transmission of torsional moments and shear forces between adjacent vertebral bodies is uncoupled from the function of the articulated connection of the elements that are associated with the vertebral bodies – the latter function being uniformly achieved according to the state of the art by the elastic properties of the intermediate element in an inadequate manner as a compromise among the various properties – this uncoupling results in essentially divergent degrees of freedom corresponding to the optimum in each case. Thus, according to the invention, it is possible to join adjacent vertebral bodies in such an articulated manner that mechanical properties are attained that are similar to those of the natural intervertebral disk.

Please replace paragraph [0011] with the following amended paragraph:

[0011] An especially advantageous embodiment of the vertebral disk according to the invention is achieved in that the contour is concave, thereby forming, for example, a recess for ~~positively~~ form-fit receiving the intermediate element. The contact surfaces are configured here in such a way that, in any case, the cohesive friction cannot be overcome by the shear and torsional load.

Please replace paragraph [0013] with the following amended paragraph:

[0013] In contrast, another likewise practical modification is achieved if the contour has a surface texture or roughness that increases the friction, at least in sections, in order to create a ~~non-positive~~ frictional connection between the two elements and the intermediate element. In this manner, a design of the contact surfaces is achieved with which, in any case, the cohesive friction is not overcome by the shear and torsional load.

Please replace paragraph [0015] with the following amended paragraph:

[0015] The intermediate element could be configured as a disk whose edge area has beads that engage in the correspondingly shaped contour. In contrast, an especially promising configuration is achieved if the intermediate element has an annular closed shape. In this manner, the torsional moments and shear forces that occur during movement can be transmitted in an optimal manner and, in addition to circular intermediate elements, it is also suitable to use oval or kidney-shaped intermediate elements since these already allow a ~~positive~~ form-fit transmission of torsional moments due to their basic shape, which diverges from the circular shape.

Please replace paragraph [0017] with the following amended paragraph:

[0017] Moreover, it has proven to be especially advantageous for the intermediate element to have a cross sectional surface that differs in sections in the direction of its annular central axis and that interacts with a correspondingly shaped contour so that a ~~positive~~ form-fit connection between the intermediate element and the outer elements allows torsional moments to take place. For example, constrictions can be provided in sections for this purpose. The diameter of the ring cross sectional surface can be modulated along the ring so that, even in the case of a ring that has a circular shape as seen from above, a rotational movement of the ring between the plate-shaped outer elements can be ruled out.

Please replace paragraph [0032] with the following amended paragraph:

[0032] Such a varying cross sectional shape is depicted in greater detail in Figure 4, which shows an enlarged side view of an intermediate element 2 shown in Figure 2. One can see regular constrictions 6 of the circular cross sectional shape in the direction of the annular central axis 7 of

the intermediate element 2 through which the occurring torsional moments can be transmitted due to a ~~positive~~ form-fit connection of the intermediate element 2 to the outer elements 4 shown in Figure 1.